What is Claimed is:

1.   A method of repairing memory cells comprises the steps of:

checking a failure rule through a bit map test of failed memory cells;

5   fixing a residual address signal as a constant state to convert it to a smaller density when a failure rule in the failed memory cells is detected;

converting an address scramble map to selectively convert an output-address-signal path by a predetermined control signal in response to the address signal input to thereby change an address code; and

10   converting high density memory cells to smaller density memory cells by outputting the changed address code.

2.   The method as defined in claim 1, wherein the constant state is a logic high or a logic low.

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3.   The method as defined claim 1, wherein the predetermined control signal includes an address selecting control signal for selecting an address to be converted; and an address code control signal for selecting a signal path which converts to an address code to be converted.

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4.   The method as defined in claim 1, wherein converting and address scramble map further comprises:

cutting-off an original output path of the address to be converted by the address selecting control signal;

25   forming output paths of the address to be converted as a new output pass path which selected by the address code control signal; and

outputting an address code signal which is converted through the new address output pass path.